

Introduction and Study Highlights

The State of Wisconsin has a goal of eradicating chronic wasting disease (CWD) from its borders. Wildlife disease experts believe that without management intervention, CWD will increase in prevalence and distribution. To accomplish disease eradication, the state is relying on cooperation from both hunters and landowners. Hunters must be willing to shoot more deer and landowners must allow hunters on their land.

This report examines landowner response to CWD in the state's southwest disease eradication zone (DEZ). The purpose of this study was to measure 1) landowner concerns about the risks associated with CWD; 2) where landowners obtain information about CWD; 3) landowner support for various CWD control measures; and 4) the effect of various incentives to shoot more deer.

The results of this study were based on answers obtained from a 22-page mailed questionnaire sent to a random sample of 1,000 landowners in the southwest DEZ. The study was administered in 2004; questions pertained to the 2003 deer hunting seasons. Researchers used standard mailed questionnaire procedures. The questionnaire itself was reviewed by the Human Dimensions Unit at Colorado State University and pre-tested by landowners in the DEZ. Sixty four percent of the eligible landowners completed and returned the questionnaire. A telephone follow-up for non-response bias disclosed no differences between respondents and non-respondents.

To anticipate the detailed findings outlined in the Results and Discussion section, four major findings and their implications are presented here. A summary of the other survey results are presented in the Conclusion section of this report.



Major Finding #1.

Landowners support the State's goal of disease eradication, yet they show mixed to low support for the various disease eradication techniques.

Results show strong landowner endorsement for the state's mission of disease eradication and control. Seven landowners in ten (71%) agree that CWD should not be allowed to spread further in the state, 69 percent say the percentage of deer infected with CWD should not be allowed to increase, and nearly two-thirds (64%) agree that CWD should be eliminated from the state. Conflicting with this endorsement, however, is strong disapproval of and opposition to numerous management techniques designed to accomplish the eradication goal. For example, less than one-half (43%) agree that the wild deer population should be reduced in the DEZ to less than five deer per square mile. Also, a majority of landowners (60%) does not support the state's use of sharpshooters to help reduce the deer herd in the DEZ. An even higher majority of the landowners are unwilling to allow sharpshooters on their land (76%), and oppose the use of bait by sharpshooters on their land (79%). Further, nearly three-fourths of the landowners (73%) say the reason why they limit the number of deer killed on their property is because they do not believe the disease can be stopped. In light of these opposing forces, accomplishing the goal of disease eradication will be very difficult. Rather than deterring the Department from continued eradication efforts, these opposing forces should be viewed as challenges which need immediate and continued attention.

To build public support the Department should develop a way of communicating with the public to explain in lay terms the progress that has been made, how landowner and hunter participation is contributing to the eradication efforts, and where the disease would be without Departmental and public intervention. This will likely require cooperation from University of Wisconsin researchers to complete their modeling efforts and then develop illustration techniques which easily communicate

the model's forecasting powers. Further, anecdotal data indicate that the public would like to know if there is a sunset on the eradication effort; in other words, when will the norm return (e.g., a 9-day season absent earn-a-buck)? Expertise outside of the Department may be necessary to help craft these and other communication messages.

Major Finding #2.

Monetary incentives have little effect on increasing the time a hunter spends in the field or on the number of deer a hunter will harvest. Hence, the continued use of monetary incentives should be examined.

The survey asked whether four new incentives changed hunter behavior by increasing the time a hunter spent in the field and by increasing the number of harvested deer. Although relatively few hunters report any individual incentive had a positive effect on their harvest, this is not to say that the incentives had no impact on the number of deer taken. In all, more than one-half of the landowner-hunters (56%) report at least one of the four incentives resulted in them harvesting more deer. Looking at the specific incentives, survey results suggest that opportunities to harvest a deer (e.g., via free buck tags and a longer season) were more effective at increasing hunting participation and deer harvest than were monetary incentives. One-half (54%) of landowners who hunted in 2003 spent more time hunting because of free buck tags and 45 percent spent more time hunting because of the longer season. Further, landowners who hunt believe that offering free buck tags and extending the season were more likely to increase the actual overall harvest of deer than were monetary incentives. Approximately one-third say they harvested more deer because of the two free buck tags (35%) or the longer gun season (33%).

In contrast, the monetary incentives were less influential. The opportunity to earn either \$200 for shooting a CWD-positive deer, \$200 for having a CWD-positive deer harvested from their land, or \$20 through lottery drawings for each registered deer harvested from the DEZ each induced only 19 to 21 percent of the landowners

to spend more time hunting; and fewer than ten percent say each resulted in harvesting more deer. Results also indicate that larger monetary incentives would do little to increase the time spent hunting or the deer harvest. Increasing the positives incentive from \$200 to \$500 and the lottery payment from \$20 to \$50 would each probably or definitely increase time in the field for 23 percent of the landowner-hunters.

In response to these findings, the monetary incentives for the 2005 deer season have been reviewed. The state decided to drop the \$20 lottery incentive for the 2005 deer season but decided to continue the \$200 landowner / hunter payments to acknowledge the important role of landowners and hunters and to focus the message on the value of removing CWD infected deer. However, given the long-term effort that will likely be required to eradicate the disease from Wisconsin, the state will need to continue to weigh direct (required funds) and indirect (required personnel) costs of continued monetary incentives against the benefits gained from a potential increase in harvest of wild deer.

Major Finding #3.

From a human dimensions perspective, disease eradication will be a challenge because landowners do not believe the disease can ever be fully eradicated from the state.

Although the majority of landowners support the state's goal of eradicating CWD from the state, results indicate that landowners doubt the goal can be successfully accomplished. Landowners believe the Department's greatest challenge to disease eradication is lack of cooperation, that is, hunters who oppose the state's CWD control efforts and landowners that do not allow hunting on their land. Approximately eight in ten landowners agreed that hunters that oppose eradication efforts (81%) and landowners that do not permit hunting on their land (77%) are barriers to successfully eliminating CWD from Wisconsin's wild deer herd. Further, when landowners were asked what they believe to be the most serious barrier to eradication, the most frequently cited response (36%) is a belief that once CWD is in a wild herd it cannot be eliminated.

To combat the belief that the disease can never be eliminated, landowners will need, once again, an understanding of progress that has been made, how public participation is contributing to the eradication efforts, and where the disease would be without Department and public intervention. A peer-reviewed model which illustrates possible scenarios for disease spread absent eradication efforts is critical.

Making the challenge even greater is landowner reluctance to increase the number of deer harvested from their land. Just over one-half of the landowners (53%) have a reason for limiting the number of deer harvested from their land. Of those landowners, many (72%) feel strongly that it is wrong to take a deer that will not be used. However, approximately three-fifths (59%) of all landowners would be willing to allow more deer to be killed on their land in the DEZ if the deer could be donated to a food pantry. (The 2003 deer season did not include opportunities to donate deer to a food pantry.) This latter finding underscores the importance of outreach efforts to landowners and hunters of the now-available venison donation program.

Major Finding #4

Landowner-hunters are taking advantage of the extended seasons and those who do are killing more deer.

The traditional 9-day gun hunt remains the integral season in a multi-season framework. Even with 23 days of gun deer hunting opportunities (October 30 through November 21) preceding the 9-day gun season, landowners hunted almost four days during the traditional season (or an average of 42 percent of the 9-day season). However, landowners also took advantage of the extended seasons (pre and post the 9-day gun season). Two-thirds (68%) hunted *at least* one day other than the traditional 9-day hunt, averaging almost 13 days of deer hunting in the DEZ. From the perspective of number of days hunted, the early gun season during the first weeks of November (October 30 through November 21) is the most popular – it accounts



DNR PHOTO

for the greatest number of hunter-days, with 1,295 days reported hunting (an average of four days). As hoped, statistical analysis shows a correlation between number of days hunted and number of deer harvested ($r = 0.31$). Landowners who hunted during the early or late seasons in addition to the traditional 9-day gun hunt harvested an average of 1.9 deer apiece, while those who hunted only during the traditional hunt took an average of 1.0 deer apiece. This difference in when the landowners hunted is also significantly different (t -test, $P < 0.001$).

It should be noted, however, that landowners were not enamored with the season offerings. The largest block of landowners (35%) would prefer a gun deer season other than the alternatives offered in the questionnaire.

These findings point toward a management strategy that includes multiple opportunities to harvest deer. The Department, however, should not ignore the preference of some landowners and hunters for a return to the traditional season structure (see focus group comments within the detailed Results and Discussion section). With this in mind, the Department may want to revisit the multiple season options, paying particular attention to a structure (e.g., season breaks) that addresses the desire by some for a return to a 9-day gun deer hunt.